

### **Amendments of the Claim:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

### **Listing of Claims:**

1. (Currently Amended) A method for virtually simulating actual networked applications within a network simulation, comprising the steps of:  
providing a networked application code and a client interface which communicates with the network application code;  
providing a network simulator that simulates a network of communicating nodes;  
~~initiating~~ providing a server that interfaces to ~~the a-network simulator~~, the server comprising functionality for establishment of a bidirectional mapping of communications ~~each of said one or more networked application codes to a simulated node in the network simulator~~ a communication port based on a communication technology; initiating one or more client interfaces, the client interface ~~the client interfaces~~ being aware of the server and communicating with the server over a network; ~~providing network application code(s) to make use of the client interfaces, the network application code(s) able to communicate with the server; the network simulator being able to interoperate with the server such that the application code's communication to the networked application code from the server appears to originate from the a simulated node to which the networked application code it is mapped; and~~  
 modifying, via the client interface ~~clients~~ and the server, the networked application code by removing or inserting messages to or from simulated nodes.
  
2. (Currently Amended) A method for virtually simulating actual networked applications within a network simulation, comprising the steps of:  
~~initiating one or more servers~~ a server to interface to a network simulator;  
~~initiating one or more clients~~ a client interface to interface with ~~the server one or more servers~~ over a network, the client interface communicating with a networked application code where the clients are aware of the one or more servers;

bridging the networked application code(s) via ~~use of~~ the client interface (s) so that the network application code can communicate with the server(s);

mapping the communications of the networked application code to a simulated node in the simulator, communication from the networked application code now appearing to originate from the simulated node; and

insertion of and extraction of messages or packets from ~~or to~~ the networked application code to the simulated node, or from the simulated node to the networked application code, via the clients interface and the servers.

3. (Original) The method as recited in claim 2 wherein the step of initiating a server further comprises the step of establishing bidirectional mapping of each the networked application code to the simulated nodes ~~or communication ports based on the communication technology in the network simulator~~.

4. (Original) The method as recited claim 1 wherein the network simulator is IP based.

5. (Original) The method as recited in claim 4 wherein the network simulator further comprises an upper layer protocol.

6. (Original) The method as recited in claim 5; wherein the protocol is selected from the group consisting of TCP and UDP upper layer protocols.

7. (Currently Amended) The method as recited in claim 1 wherein the ~~application codes and networked~~ application code further utilize a ~~communication styles and wherein~~ communication style is selected from the group consisting of point-to-point, anycast, multicast and broadcast.

8. (Original) The method as recited in claim 1 wherein the network simulator comprises a plurality of network simulators.

9. (Original) The method as recited in claim 1 wherein the server comprises a plurality of servers.

10. (Currently Amended) The method as recited in claim 1 wherein the mapping of networked application code to the simulated node is dynamic.

11. (Original) The method as recited in claim 1 wherein the network simulator executes in real-time.

12. (Original) The method as recited in claim 1 wherein the execution time of the network simulator is configurable.

13. (Currently Amended) The method as recited in claim 1 wherein ~~at least one of the~~ client interfaces and the server are implemented ~~via dedicated,~~ on separate hardware.

14. (Currently Amended) The method as recited in claim 2 wherein the networked application code is executed in parallel over a distributed system.

15. (Original) The method as recited claim 2 wherein the network simulator is IP based.

16. (Currently Amended) The method as recited in claim 15 wherein the network simulator further comprises a protocol selected from the group consisting of TCP and UDP upper layer protocols.

17. (Cancelled)

18. (Currently Amended) The method as recited in claim 2 wherein the networked application code further utilizes a communication style, ~~and wherein the communication style is~~ selected from the group consisting of point-to-point, anycast, multicast and broadcast.

19. (Original) The method as recited in claim 2 wherein the network simulator comprises a plurality of network simulators.

20. (Currently Amended) The method as recited in claim 2 wherein the ~~one or more~~ servers comprises a plurality of servers.

21. (Currently Amended) The method as recited in claim 2 wherein the mapping of the networked application code to simulated network node is dynamic.

22. (Original) The method as recited in claim 2 wherein the network simulator executes in real-time.

23. (Original) The method as recited in claim 2 wherein the execution time of the network simulator is configurable.

24. (Currently Amended) The method as recited in claim 2 wherein ~~at least one of the~~ clients interface and the servers are implemented ~~via dedicated,~~ on separate hardware.

25. (Currently Amended) The method as recited in claim 2 wherein the networked application code is executed in parallel over a distributed system.

26. (Original) The method as recited in claim 1 wherein the server is a plug in to the simulator.

27. (Original) The method as recited in claim 2 wherein the server is a plug in to the simulator.

28-30 (Cancelled)

31. (New) The method of claim 1, wherein the client interface includes a plurality of client interfaces and the networked application code includes a plurality of networked

application codes, each client interface associated with at least one of the plurality of networked application codes.

32. (New) The method of claim 2, wherein the client interface includes a plurality of client interfaces and the networked application code includes a plurality of networked application codes, each client interface associated with at least one of the plurality of networked application codes.

33 (New) A computer system for virtually simulating actual networked applications within a network simulation comprising:

- a plurality of clients, each client having a client interface, the client interface communicating with an associated networked application code executing on the client;
- a network simulator including a plurality of simulated nodes;
- a server, the server having functionality for interfacing to the network simulator;
- and wherein each client communicates with the server over a network,
- and wherein each client executes the networked application code and the client interface so that the networked application code can communicate with the server,
- and wherein the client interface maps the networked application code to one of the simulated nodes so that communication from the networked application code now appears to originate from the simulated node, and inserts and extracts messages or packets from the networked application code.

34. (New) The system according to claim 33, wherein server has functionality for providing message or packet transfer among simulated nodes and/or networked application codes.